

4. Gan

Program Name: Gan.java

Input File: gan.dat

Gan is doing some work with circles in his math class, specifically calculating circumference and area, along with surface area and volume of spheres. Using the standard formulas of $2\pi r$, πr^2 , $4\pi r^2$, $4/3\pi r^3$, and using the same radius value for all four expressions, his homework is to calculate and express to a precision of one decimal point, the outcomes for all of these calculations, and needs your help to write a program to check his work, showing, in a nice clear, well-aligned format, the results of the calculations. He decides to use the value of PI, precise to 15 places, which is 3.141592653589793.

Input: Several integers, all on one line, with single space separation.

Output: For each integer, output the original value as the radius of a circle, followed by the circumference, area, surface area, and sphere volume using the given radius, formatted exactly as shown below, with dash lines above and below the output, arranged, formatted and aligned exactly as shown below.

Sample input:

2 5 3 12

Sample output:

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2      12.6      12.6      50.3      33.5
5      31.4      78.5      314.2     523.6
3      18.8      28.3      113.1     113.1
12     75.4     452.4     1809.6    7238.2
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